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Sort Results

2/3,AB/1 (Item 1 from file: 5)
12891533 **Biosis No.:** 200100098682

Interactions between dietary fibre, endo-parasites and Lawsonia intracellularis bacteria in grower-finisher pigs.

Author: Pearce G P(a)
Author Address: (a)Department of Agriculture, University of Aberdeen, 581King Street, MacRobert Building, Aberdeen, AB24 5UA: g.pearce@abdn.ac.uk**UK
Journal: Veterinary Parasitology 87 (1): p 51-61 November, 1999
Medium: print
ISSN: 0304-4017
Document Type: Article
Record Type: Abstract
Language: English
Summary Language: English

Abstract: Samples of faeces and feed were collected from grower and finisher pigs kept on 25 commercial breeder-finisher units in the West-Midlands region of England. Faecal samples were examined for parasite eggs (Ascaris suis, Trichuris suum and strongylid species) using faecal flotation; and for Lawsonia intracellularis bacteria using the polymerase chain reaction. Feed samples were subjected to proximate analysis for energy, protein and fibre content and enzymic colorimetry for levels of non-starch polysaccharides (NSPs). Characteristics relating to housing, feeding and dung disposal systems and husbandry practices were recorded for each farm and assessed for their association with the presence of parasites and L. intracellularis at the herd level. Ascaris eggs were identified in 8% of herds, Trichuris eggs in 20% of herds and in strongylid eggs (Oesophogostomum and/or Hyostrongylus) in 44% of herds. Lawsonia intracellularis was detected in 15% of herds investigated. Herds positive for Trichuris and Ascaris had significantly lower levels of digestible energy and higher levels of neutral detergent fibre, total and insoluble NSPs in their diets than negative herds

(p < 0.05). Housing weaners on slatted floors was associated with a significant decreased risk of parasite infection in grower-finishers (odds ratio = 0.09, p = 0.04) compared to housing on solid floors. The use of grower diets high in NSPs was associated with an increased risk of Trichuris infection (odds ratio = 27.6, p = 0.007). There was also an association at the herd level between infection with L. intracellularis and the presence of Trichuris eggs (odds ratio = 17.43, p = 0.069). It is concluded that control of dietary fibre intake (NSPs in particular) for growers and environmental hygiene (dung removal) for weaners appear to be the most important factors controlling parasite infection in grower-finisher pigs in the UK at present. The current move towards more straw based systems is thus likely to exacerbate the influence of these factors and is likely to result in increased parasite infection in grower-finisher pigs in the UK.

1999

2/3,AB/2 (Item 2 from file: 5)
12705973 **Biosis No.:** 200000459475

Immunohistochemistry and polymerase chain reaction for the detecti n of Lawsonia intracellularis in porcine intestinal tissues with proliferative enteropathy.

Author: Kim Junghyun; Choi Changsun; Cho Wan-Seob; Chae Chanhee(a)
Author Address: (a)Department of Veterinary Pathology, College of Veterinary Medicine, Seoul National University, Suwon, Kyounggi Do, 441-744**South Korea
Journal: Journal of Veterinary Medical Science 62 (7): p 771-773 July, 2000
Medium: print
ISSN: 0916-7250
Document Type: Article
Record Type: Abstract
Language: English
Summary Language: English

Abstract: Detection method of Lawsonia intracellularis was studied in formalin-fixed paraffin-embedded intestinal tissues from 5 naturally infected pigs by immunohistochemistry with a monoclonal antibody against outer membrane protein of L. intracellularis. Warthin-Starry silver stain revealed clusters of argyrophilic, slightly curved rod-shaped organisms in the apical cytoplasm of enterocytes. Immunohistochemical staining with a L. intracellularis-specific monoclonal antibody confirmed the presence of the organism in the apical cytoplasm of hyperplastic enterocytes. The presence of L. intracellularis in the ileum of pig with proliferative enteropathy was confirmed by polymerase chain reaction (PCR) further on the basis of amplification of 319 base pair products specific for porcine L. intracellularis chromosomal DNA. Immunohistochemistry and PCR may be a complementary method to confirm the diagnosis of L. intracellularis infection in pigs.

2000

microscopy. Bacteria were further characterized by indirect immunofluorescence using a monoclonal antibody specific for the 25-27-kd outer membrane protein of L. intracellularis.

2/3,AB/5 (Item 1 from file: 50)
03138144 **CAB Accession Number:** 952219483
Characterization of Lawsonia intracellularis gen. nov., sp. nov., the obligately intracellular bacterium of porcine proliferative enteropathy.

McOrist, S.; Gebhart, C. J.; Boid, R.; Barns, S. M.
Department of Veterinary Pathology, Veterinary Field Station, University of Edinburgh, Easter Bush, Midlothian EH25 9RG, UK.
International Journal of Systematic Bacteriology vol. 45 (4): p.820-825
Publication Year: 1995
ISSN: 0020-7713
Language: English
Document Type: Journal article
A novel bacterium, ileal symbiont intracellularis, obtained from the intestines of pigs with proliferative enteropathy disease, was grown in pure cocultures with tissue cultures of rat cells. An examination of the 16S ribosomal DNA gene sequence revealed that the isolates obtained are members of the delta subdivision of the Proteobacteria and that the sequences of these organisms exhibit 91% similarity with Desulfovibrio desulfuricans ATCC 27774. These isolates were homogeneous and differed in cellular morphology, acid fastness, phenotype, electrophoretic protein profile, and habitat from Desulfovibrio species. It is concluded that these bacteria belong to a previously undescribed genus and species, for which the name Lawsonia intracellularis gen. nov., sp. nov. is proposed. A species-specific recombinant DNA probe, previously cloned, was used to identify the bacterium in tissue culture cells and in the ileal epithelia of pigs with proliferative enteropathy disease. The type strain was designated as NCTC 12656. The organism is pathogenic for pigs and causes proliferative enteropathy lesions in their ilea and colons. Koch's postulates were fulfilled for this organism. 23 ref.

Koch's postulates were fulfilled for this organism. 25 ref.

2/3,AB/6 (Item 1 from file: 180)
DIALOG Accession Number: 03069577 **Supplier Number:** 66083011
New Animal Drugs for Use in Animal Feeds; Ractopamine and Tylosin

Volume: 66 **Issue:** 83 **Page:** 21283
Citation Number: 66 FR 21283
Date: Monday, April 30, 2001

2/3,AB/7 (Item 1 from file: 348)
01270274
Lawsonia intracellularis proteins, and related methods and materials
Title in German: Lawsonia intracellularis Proteine sowie Methoden und Materialien die diese verwenden
Title in French: Proteines de Lawsonia intracellularis et procedes et materiaux relatifs a ces proteines

Patent Assignee: Pfizer Products Inc., (2434221), Eastern Point Road, Groton, Connecticut 06340, (US), (Applicant designated States: all)

Inventor: Rosey, Everett Lee, Pfizer Central Research, Eastern Point Road, Groton, Connecticut 06340, (US)

Legal Representative: Eddowes, Simon et al (87482), Urquhart-Dykes & Lord, 30 Welbeck Street, London W1G 8ER, (GB)

	Patent Number	Kind	Date
Patent	EP 1094070	A2	010425 (Basic)
Application	EP 309125		001017
Priority	US 160922		991022

Designated States: AT; BE; CH; CY; DE; DK; ES; FI; FR; GB; GR; IE; IT; LI; LU; MC; NL; PT; SE
Extended Designated States: AL; LT; LV; MK; RO; SI
International Patent Class: C07K-014/205; C12N-015/31

Abstract EP 1094070 A2

Isolated polynucleotide molecules contain a nucleotide sequence that encodes a L. intracellularis HtrA, PonA, HypC, LysS, YcfW, ABC1, or Omp100 protein, a substantial portion of the sequences, or a homologous sequence. Related polypeptides, immunogenic compositions and assays are described.

Abstract Word Count: 40 **Note:**
Figure number on first page: 1

Language (Publication,Procedural,Application): English; English; English

FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS A	(English)	200117	864
SPEC A	(English)	200117	25111

Total word count	Document A	25975
T tal word count	Document B	0
Total w rd count	Document A + B	25975

2/3,AB/8 (Item 1 from file: 349)
00757707

LAWSONIA DERIVED GENE AND RELATED HEMOLYSIN POLYPEPTIDES, PEPTIDES AND PROTEINS AND THEIR USES
GENE DERIVE DE LAWSONIA , POLYPEPTIDES, PEPTIDES ET PROTEINES D'HEMOLYSINE ET LEURS UTILISATIONS

Patent Applicant/Assignee:
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PIG RESEARCH AND DEVELOPMENT CORPORATION, 3rd Floor, Industry House, 10 National Circuit, Barton, Australian Capital Territory 2600, AU, AU (Residence), AU (Nationality), (For all designated states except: US)
Patent Applicant/Inventor:
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ROSEY Everett Lee, 457 Route 164, Preston, CT 06365, US, US (Residence), US (Nationality), (Designated only for: US)
HASSE Detlef, 4 Scullin Court, Sunbury, Victoria 3429, AU, AU (Residence), AU (Nationality), (Designated only for: US)
ANKENBAUER Robert Gerard, 104 Castle Hill Road, Pawcatuck, CT 06379, US, US (Residence), US (Nationality), (Designated only for: US)
Legal Representative:
OLIVE Mark R, Davies Collison Cave, 1 Little Collins Street, Melbourne, VIC 3000, AU

Patent and Priority Information (Country, Number, Date):
Patent: WO 200069906 A1 20001123 (WO 0069906)
Applicati n: WO 2000AU439 20000511 (PCT/ WO AU0000439)
Pri rity Application: US 99134022 19990513

Designated States: AE AG AL AM AT AU AZ BA BB BG BR BY CA CH CN CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW
(EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE
(OA) BF BJ CF CG CI CM GA GN GW ML MR NE SN TD TG
(AP) GH GM KE LS MW SD SL SZ TZ UG ZW
(EA) AM AZ BY KG KZ MD RU TJ TM
Publication Language: English
Filing Language: English
Fulltext Word Count: 20844

English Abstract

The present invention relates generally to therapeutic compositions for the treatment and/or prophylaxis of intestinal disease conditions in animals and birds caused or exacerbated by Lawsonia intracellularis or similar or otherwise related microorganism. In particular, the present invention provides a novel gene derived from Lawsonia intracellularis which encodes an immunogenic hemolysin peptide, polypeptide or protein that is particularly useful as an antigen in vaccine preparation for conferring humoral immunity against Lawsonia intracellularis and related pathogens in animal hosts. The present invention is also directed to methods for the treatment and/or prophylaxis of such intestinal disease conditions and to diagnostic agents and procedures for detecting Lawsonia intracellularis or similar or otherwise related microorganisms.

French Abstract

La presente invention concerne d'une maniere generale des compositions therapeutiques destinees au traitement et/ou a la prophylaxie de maladies intestinales chez des animaux et des oiseaux, provoquees ou exacerbees par Lawsonia intracellularis ou un autre micro-organisme similaire ou associe. L'invention concerne en particulier un nouveau gene derive de Lawsonia intracellularis codant pour un peptide, un polypeptide ou une proteine d'hemolysine immunogene, particulierement utiles en tant qu'antigene dans

des preparations vaccinales pour generer chez des animaux hotes une immunite humorale contre Lawsonia intracellularis et les agents pathogenes associes. L'invention concerne egalement des methodes de traitement et/ou de prophylaxie de telles maladies intestinales, ainsi que des agents de diagnostic et des procedes de detection de Lawsonia intracellularis ou de micro-organismes similaires ou associes.

2/3,AB/9 (Item 2 from file: 349)
00757706

LAWSONIA DERIVED GENE AND RELATED OmpH POLYPEPTIDES, PEPTIDES AND PROTEINS AND THEIR USES
GENE DERIVE DE LAWSONIA ET POLYPEPTIDES, PEPTIDES ET PROTEINES OMPH APPARENTES, ET LEURS UTILISATIONS

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Patent and Priority Information (Country, Number, Date):

Patent: WO 200069905 A1 20001123 (WO 0069905)
Application: WO 2000AU438 20000511 (PCT/ WO AU0000438)
Priority Application: US 99133986 19990513
Designated States: AE AG AL AM AT AU AZ BA BB BG BR BY CA CH CN CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW
(EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE
(OA) BF BJ CF CG CI CM GA GN GW ML MR NE SN TD TG
(AP) GH GM KE LS MW SD SL SZ TZ UG ZW
(EA) AM AZ BY KG KZ MD RU TJ TM
Publication Language: English
Filing Language: English
Fulltext Word Count: 20898

English Abstract

The present invention relates generally to therapeutic compositions for the treatment and/or prophylaxis of intestinal disease conditions in animals and birds caused or exacerbated by Lawsonia intracellularis or similar or otherwise related microorganism. In particular, the present invention provides a novel gene derived from Lawsonia intracellularis which encodes an immunogenic OmpH peptide, polypeptide or protein that is particularly useful as an antigen in vaccine preparation for conferring humoral immunity against Lawsonia intracellularis and related pathogens in animal hosts. The present invention is also directed to methods for the treatment and/or prophylaxis of such intestinal disease conditions and to diagnostic agents and procedures for detecting Lawsonia intracellularis or similar or otherwise related microorganisms.

French Abstract

La presente invention concerne generalement des compositions therapeutiques permettant de traiter et/ou de prevenir des infections intestinales chez des animaux et des oiseaux, ces infections etant provoquees ou aggravees par Lawsonia intracellularis ou tout autre micro-organisme

identique ou apparente. La presente invention concerne en particulier un nouveau gene derive de Lawsonia intracellularis , ce gene codant pour un peptide, un polypeptide, ou une proteine OmpH immunogene qui est particulierement utile comme antigene dans des preparations vaccinales et qui confere une immunite humorale contre Lawsonia intracellularis , et ses agents pathogenes apparentes, a des hotes animaux. Enfin, la presente invention concerne des methodes permettant de traiter et/ou de prevenir les infections intestinales susmentionnees, ainsi que des agents diagnostiques et des procedures pour detecter Lawsonia intracellularis ou tout autre micro-organisme identique ou apparente.

2/3,AB/10 (Item 3 from file: 349)
00757705

LAWSONIA DERIVED GENE AND RELATED FlgE POLYPEPTIDES, PEPTIDES AND PROTEINS AND THEIR USES
GENE DERIVE DE LAWSONIA , POLYPEPTIDES FLGE, PEPTIDES ET PROTEINES ET LEURS UTILISATIONS

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ANKENBAUER Robert Gerard , 104 Castle Hill Road, Pawcatuck, CT 06379, US, US (Residence), US (Nationality), (Designated only for: US)
Legal Representative:
OLIVE Mark R, Davies Collison Cave, 1 Little Collins Street, Melbourne, VIC 3000, AU
Patent and Priority Information (Country, Number, Date):
Patent: WO 200069904 A1 20001123 (WO 0069904)
Application: WO 2000AU437 20000511 (PCT/ WO AU0000437)
Priority Application: US 99133973 19990513
Designated States: AE AG AL AM AT AU AZ BA BB BG BR BY CA CH CN CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW
(EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE
(OA) BF BJ CF CG CI CM GA GN GW ML MR NE SN TD TG
(AP) GH GM KE LS MW SD SL SZ TZ UG ZW
(EA) AM AZ BY KG KZ MD RU TJ TM
Publication Language: English
Filing Language: English
Fulltext Word Count: 21053

English Abstract

The present invention relates generally to therapeutic compositions for the treatment and/or prophylaxis of intestinal disease conditions in animals and birds caused or exacerbated by Lawsonia intracellularis or similar or otherwise related microorganism. In particular, the present invention provides a novel gene derived from Lawsonia intracellularis which encodes an immunogenic FlgE peptide, polypeptide or protein that is particularly useful as

an antigen in vaccine preparation for conferring humoral immunity against Lawsonia intracellularis and related pathogens in animal hosts. The present invention is also directed to methods for the treatment and/or prophylaxis of such intestinal disease conditions and to diagnostic agents and procedures for detecting Lawsonia intracellularis or similar or otherwise related microorganisms.

French Abstract

La presente invention concerne d'une facon generale des compositions therapeutiques destinees au traitement et/ou a la prophylaxie des maladies intestinales chez les animaux et les oiseaux causees ou aggravees par Lawsonia intracellularis ou par des micro-organismes similaires ou apparentes. Cette invention concerne en particulier un gene derive de Lawsonia intracellularis codant pour un peptide immunogene FlgE, un polypeptide ou une proteine qui convient particulierement comme antigene dans une preparation de vaccin destine a apporter une immunite humorale contre Lawsonia intracellularis et les micro-organismes pathogenes des animaux. La presente invention concerne aussi des methodes destinees au traitement et a la prophylaxie de ces maladies intestinales, des agents diagnostiques et des methodes permettant de detecter Lawsonia intracellularis ou des micro-organismes similaires ou apparentes.

2/3,AB/11 (Item 4 from file: 349)
00757704

LAWSONIA DERIVED GENE AND RELATED SodC POLYPEPTIDES, PEPTIDES AND PROTEINS AND THEIR USES
GENE DERIVE DE LAWSONIA ET POLYPEPTIDES, PEPTIDES ET PROTEINES SODC ASSOCIES, ET LEURS UTILISATIONS

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WRIGHT Catherine, 49/422 Cardigan Street, Carlton, Victoria 3053, AU, AU (Residence), AU (Nationality), (Designated only for: US)

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OLIVE Mark R, Davies Collison Cave, 1 Little Collins Street, Melbourne, Victoria 3000, AU

Patent and Priority Information (Country, Number, Date):

Patent: WO 200069903 A1 20001123 (WO 0069903)
Application: WO 2000AU436 20000511 (PCT/ WO AU0000436)
Priority Application: US 99133989 19990513
Designated States: AE AG AL AM AT AU AZ BA BB BG BR BY CA CH CN CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW
(EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE
(OA) BF BJ CF CG CI CM GA GN GW ML MR NE SN TD TG
(AP) GH GM KE LS MW SD SL SZ TZ UG ZW
(EA) AM AZ BY KG KZ MD RU TJ TM
Publication Language: English
Filing Language: English

Fulltext Word Count: 21674

English Abstract

The present invention relates generally to therapeutic compositions for the treatment and/or prophylaxis of intestinal disease conditions in animals and birds caused or exacerbated by Lawsonia intracellularis or similar or otherwise related microorganism. In particular, the present invention provides a novel gene derived from Lawsonia intracellularis which encodes an immunogenic SodC peptide, polypeptide or protein that is particularly useful as an antigen in vaccine preparation for conferring humoral immunity against Lawsonia intracellularis and related pathogens in animal hosts. The present invention is also directed to methods for the treatment and/or prophylaxis of such intestinal disease conditions and to diagnostic agents and procedures for detecting Lawsonia intracellularis or similar or otherwise related microorganisms.

French Abstract

La presente invention porte en general sur des compositions therapeutiques utilisees dans le traitement et/ou la prophylaxie des maladies intestinales chez les animaux et les oiseaux provoquees ou exacerbees par Lawsonia intracellularis ou similaire ou autre micro-organisme apparente. Cette invention porte notamment sur un nouveau gene derive de Lawsonia intracellularis qui code un peptide, polypeptide ou proteine SodC immunogenique qui est notamment utile comme antigene dans la preparation de vaccins en vue de conferer l'immunite humorale contre Lawsonia intracellularis et des agents pathogenes apparentes chez des animaux hotes. Cette invention porte egalement sur des procedes de traitement et/ou prophylaxie de ces maladies intestinales, ainsi que sur des agents diagnostiques et sur des procedures de detection de Lawsonia intracellularis ou similaire ou autres micro-organismes apparentes.

2/3,AB/12 (Item 5 from file: 349)

00701137

< i> STAPHYLOCOCCUS AUREUS< /i> GENES AND POLYPEPTIDES
GENES DE < i> STAPHYLOCOCCUS AUREUS< /i> ET POLYPEPTIDES ASSOCIES

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Patent and Priority Information (Country, Number, Date):
Patent: WO 0012678 A2 20000309 (WO 200012678)
Application: WO 99US19726 19990831 (PCT/ WO US9919726)
Priority Application: US 9898964 19980901
Designated States: AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG US UZ VN YU ZA ZW GH GM KE LS MW SD SL SZ UG ZW AM AZ BY KG KZ MD RU TJ TM AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE BF BJ CF CG CI CM GA GN GW ML MR NE SN TD TG
Publication Language: English
Filing Language: English
Fulltext Word Count: 33507

English Abstract
The present invention relates to novel genes from < i> S. aureus< /i> and the polypeptides they encode. Also provided are vectors, host cells, antibodies and recombinant methods for producing the same. The invention further relates to screening methods for identifying agonists and antagonists of < i> S. aureus< /i> polypetide activity. The invention additionally relates to diagnostic methods for detecting < i> Staphylococcus< /i> nucleic acids,

polypeptides and antibodies in a biological sample. The present invention further relates to novel vaccines for the prevention or attenuation of infection by < i> Staphylococcus< /i> .

French Abstract

La presente invention concerne de nouveaux genes provenant de < i> S. aureus< /i> et les polypeptides qu'ils codent. On decrit egalement des vecteurs, des cellules hotes, des anticorps et des procedes de recombinaison utilises pour produire ces derniers; ainsi que des procedes de criblage permettant d'identifier des agonistes et des antagonistes de l'activite du polypeptide < i> S. aureus< /i> . L'invention concerne en outre des procedes de diagnostic utiles pour detecter des acides nucleiques, des polypeptides et des anticorps de < i> Staphylococcus< /i> dans un echantillon biologique, ainsi que de nouveaux vaccins permettant de prevenir ou d'attenuer l'infection par le < i> Staphylococcus< /i> .

2/3,AB/13 (Item 1 from file: 357)
0213848 **DBA Accessi n No.:** 97-08969 **PATENT**
Vaccine for treating or preventing infection by Lawsonia intracellularis - GroEL or GroES protein, etc., or DNA sequence for use as a pig recombinant vaccine or nucleic acid vaccine

Author: Panaccio M; Hasse D
Corporate Source: Melbourne, Victoria, Australia; Barton, Australian Capital Territory, Australia.
Patent Assignee: Daratech; Pig-Research-Development 1997
Patent Number: WO 9720050 **Patent Date:** 970605 **WPI Accession No.:** 97-310605 (9728)
Priority Application Number: AU 956911 **Application Date:** 951130
National Application Number: WO 96AU767 **Application Date:** 961129
Language: English
Abstract: A new vaccine composition for prevention or therapy of animal or bird (particularly pig) infection by Lawsonia intracellularis or a related strain contains an immunogenic non-pathogenic form of L. intracellularis, e.g. an attenuated strain or formaldehyde-killed preparation, or an immunogenic peptide, protein (optionally recombinant), carbohydrate, lipid or nucleic acid from the strain. A refolding or heat shock protein (GroEL or GroES protein, preferred), a flagellum basal body rod protein, S-adenosylmethionine:tRNA-ribosyltransferase-isomerase, autolysin (EC-3.4.24.38), enoyl-(acyl-carrier-protein)-reductase or a glucarate transporter or derivative may be present. DNA sequences encoding several of these components are claimed, and may be used to produce recombinant vaccines or as nucleic acid vaccines. The vaccines may be used e.g. to prevent proliferative enteropathy in pigs. (94pp)

2/3,AB/14 (Item 1 from file: 399)
134321599 **CA**: 134(23)321599h PATENT

Cloning of Lawsonia genes htrA, ponA, hypC, lysS, ycfW, abc1, and omp100, their encoded proteins or peptides and therapeutic use in diagnosis and as vaccine

Inventor (Author): Rosey, Everett Lee
Location: USA
Assignee: Pfizer Products Inc.
Patent: European Pat. Appl. ; EP 1094070 A2 **Date**: 20010425
Application: EP 2000309125 (20001017) *US PV160922 (19991022)
Pages: 80 pp.
CODEN: EPXXDW
Language: English
Class: C07K-014/205A; C12N-015/31B
Designated Countries: AT; BE; CH; DE; DK; ES; FR; GB; GR; IT; LI; LU; NL; SE; MC; PT; IE; SI; LT; LV; FI; RO

2/3,AB/15 (Item 2 from file: 399)
134014022 **CA**: 134(2)14022f PATENT
Laws nia-derived gene ompH and related outer membrane protein H polypeptides, peptides and pr teins and their uses for diagnosis and treatment of avian and porcine infections

Inventor (Author): Hasse, Detlef; Panaccio, Michael; Sinistaj, Meri
Location: Australia
Assignee: Pig Research and Development Corporation; Agriculture Victoria Services Pty Ltd
Patent: PCT International ; WO 200069905 A1 **Date**: 20001123
Application: WO 2000AU438 (20000511) *US PV133986 (19990513)
Pages: 85 pp.
CODEN: PIXXD2
Language: English
Class: C07K-014/195A; C07H-021/04B; A61K-039/02B; A61P-001/00B
Designated Countries: AE; AG; AL; AM; AT; AU; AZ; BA; BB; BG; BR; BY; CA; CH; CN; CR; CU; CZ; DE; DK; DM; DZ; EE; ES; FI; GB; GD; GE; GH; GM; HR; HU; ID; IL; IN; IS; JP; KE; KG; KP; KR; KZ; LC; LK; LR; LS; LT; LU; LV; MA; MD; MG; MK; MN; MW; MX; NO; NZ; PL; PT; RO; RU; SD; SE; SG; SI; SK; SL; TJ; TM; TR; TT; TZ; UA; UG; US; UZ; VN; YU; ZA; ZW; AM; AZ; BY; KG; KZ; MD; RU; TJ; TM
Designated Regional: GH; GM; KE; LS; MW; SD; SL; SZ; TZ; UG; ZW; AT; BE; CH; CY; DE; DK; ES; FI; FR; GB; GR; IE; IT; LU; MC; NL; PT; SE; BF; BJ; CF; CG; CI; CM; GA; GN; GW; ML; MR; NE; SN; TD; TG

2/3,AB/16 (Item 3 from file: 399)
134001364 **CA**: 134(1)1364u PATENT
Laws nia-derived gene tlyA and related hemolysin polypeptides, peptides and proteins and their uses for diagnosis and treatment of avian and porcine infections

Inventor (Author): Panaccio, Michael; Rosey, Everett Lee; Hasse, Detlef; Ankenbauer, Robert Gerard
Location: USA
Assignee: Pfizer Products Inc; Agriculture Victoria Services Pty Ltd; Pig Research and Development Corporation
Patent: PCT International ; WO 200069906 A1 **Date**: 20001123
Application: WO 2000AU439 (20000511) *US PV134022 (19990513)
Pages: 86 pp.
CODEN: PIXXD2
Language: English
Class: C07K-014/195A; C07H-021/04B; A61K-039/02B; A61P-001/00B
Designated Countries: AE; AG; AL; AM; AT; AU; AZ; BA; BB; BG; BR; BY; CA; CH; CN; CR; CU; CZ; DE; DK; DM; DZ; EE; ES; FI; GB; GD; GE; GH; GM; HR; HU; ID; IL; IN; IS; JP; KE; KG; KP; KR; KZ; LC; LK; LR; LS; LT; LU; LV; MA; MD; MG; MK; MN; MW; MX; NO; NZ; PL; PT; RO; RU; SD; SE; SG; SI; SK; SL; TJ; TM; TR; TT; TZ; UA; UG; US; UZ; VN; YU; ZA; ZW; AM; AZ; BY; KG; KZ; MD; RU; TJ; TM
Designated Regional: GH; GM; KE; LS; MW; SD; SL; SZ; TZ; UG; ZW; AT; BE; CH; CY; DE; DK; ES; FI; FR; GB; GR; IE; IT; LU; MC; NL; PT; SE; BF; BJ; CF; CG; CI; CM; GA; GN; GW; ML; MR; NE; SN; TD; TG

2/3,AB/17 (Item 4 from file: 399)
133359825 **CA**: 133(26)359825w PATENT

Lawsonia-derived gene flgE and related flagellar hook polypeptides, peptides and proteins and their uses for diagnosis and treatment of avian and porcine infections

Inventor (Author): Panaccio, Michael; Rosey, Everett Lee; Sinistaj, Meri; Hasse, Detlef; Parsons, Jim; Ankenbauer, Robert Gerard
Location: USA
Assignee: Pfizer Products Inc.; Agriculture Victoria Services Pty Ltd; Pig Research and Development Corporation
Patent: PCT International ; WO 200069904 A1 **Date:** 20001123
Application: WO 2000AU437 (20000511) *US PV133973 (19990513)
Pages: 97 pp.
CODEN: PIXXD2
Language: English
Class: C07K-014/195A; C07H-021/04B; A61K-039/02B; A61P-001/00B
Designated Countries: AE; AG; AL; AM; AT; AU; AZ; BA; BB; BG; BR; BY; CA; CH; CN; CR; CU; CZ; DE; DK; DM; DZ; EE; ES; FI; GB; GD; GE; GH; GM; HR; HU; ID; IL; IN; IS; JP; KE; KG; KP; KR; KZ; LC; LK; LR; LS; LT; LU; LV; MA; MD; MG; MK; MN; MW; MX; NO; NZ; PL; PT; RO; RU; SD; SE; SG; SI; SK; SL; TJ; TM; TR; TT; TZ; UA; UG; US; UZ; VN; YU; ZA; ZW; AM; AZ; BY; KG; KZ; MD; RU; TJ; TM
Designated Regional: GH; GM; KE; LS; MW; SD; SL; SZ; TZ; UG; ZW; AT; BE; CH; CY; DE; DK; ES; FI; FR; GB; GR; IE; IT; LU; MC; NL; PT; SE; BF; BJ; CF; CG; CI; CM; GA; GN; GW; ML; MR; NE; SN; TD; TG

2/3,AB/18 (Item 5 from file: 399)
133359824 **CA**: 133(26)359824v PATENT
Lawsonia-derived gene sodC and related superoxide dismutase polypeptides, peptides and proteins and their uses for diagnosis and treatment of avian and porcine infections

Inventor (Author): Ankenbauer, Robert Gerard; Hasse, Detlef; Panaccio, Michael; Rosey, Everett Lee; Wright, Catherine
Location: USA
Assignee: Pfizer Products, Inc.; Pig Research and Development Corp.; Agriculture Victoria Services Pty., Ltd.
Patent: PCT International ; WO 200069903 A1 **Date:** 20001123
Application: WO 2000AU436 (20000511) *US PV133989 (19990513)
Pages: 85 pp.
CODEN: PIXXD2
Language: English
Class: C07K-014/195A; C07H-021/04B; A61K-039/02B; A61P-001/00B
Designated Countries: AE; AG; AL; AM; AT; AU; AZ; BA; BB; BG; BR; BY; CA; CH; CN; CR; CU; CZ; DE; DK; DM; DZ; EE; ES; FI; GB; GD; GE; GH; GM; HR; HU; ID; IL; IN; IS; JP; KE; KG; KP; KR; KZ; LC; LK; LR; LS; LT; LU; LV; MA; MD; MG; MK; MN; MW; MX; NO; NZ; PL; PT; RO; RU; SD; SE; SG; SI; SK; SL; TJ; TM; TR; TT; TZ; UA; UG; US; UZ; VN; YU; ZA; ZW; AM; AZ; BY; KG; KZ; MD; RU; TJ; TM
Designated Regional: GH; GM; KE; LS; MW; SD; SL; SZ; TZ; UG; ZW; AT; BE; CH; CY; DE; DK; ES; FI; FR; GB; GR; IE; IT; LU; MC; NL; PT; SE; BF; BJ; CF; CG; CI; CM; GA; GN; GW; ML; MR; NE; SN; TD; TG

2/3,AB/19 (Item 6 from file: 399)
127094116 **CA**: 127(7)94116h PATENT
Lawsonia intracellularis immunogenic components identification, DNA sequences, and uses for animal intestine infection vaccine or diagnosis

Inventor (Author): Panaccio, Michael; Hasse, Detlef
Location: Australia
Assignee: Daratech Pty. Ltd.; Pig Research and Development Corporation; Panaccio, Michael; Hasse, Detlef
Patent: PCT International ; WO 9720050 A1 **Date:** 19970605
Application: WO 96AU767 (19961129) *AU 956910 (19951130) *AU 956911 (19951130)
Pages: 94 pp.
CODEN: PIXXD2
Language: English
Class: C12N-015/31A; A61K-039/02B; A61K-039/106B
Designated Countries: AL; AM; AT; AU; AZ; BA; BB; BG; BR; BY; CA; CH; CN; CU; CZ; DE; DK; EE; ES; FI; GB; GE; HU; IL; IS; JP; KE; KG; KP; KR; KZ; LC; LK; LR; LS; LT; LU; LV; MD; MG; MK; MN; MW; MX; NO; NZ; PL; PT; RO; RU; SD; SE; SG; SI; SK; TJ; TM; TR; TT; UA; UG; US; UZ; VN; AM; AZ; BY; KG; KZ; MD; RU; TJ; TM
Designated Regional: KE; LS; MW; SD; SZ; UG; AT; BE; CH; DE; DK; ES; FI; FR; GB; GR; IE; IT; LU; MC; NL; PT; SE; BF; BJ; CF; CG; CI; CM; GA; GN; ML; MR; NE; SN; TD; TG

2/3,AB/20 (Item 1 from file: 654)
02928383
Utility

LAWSONIA INTRACELLULARIS CULTIVATION, ANTI-LAWSONIA INTRACELLULARIS VACCINES AND DIAGNOSTIC AGENTS

[Bacteria strain ATCC No.55783 are incubated in an oxygen concentration of from about 0 percent to about 18 percent, agitating the bacteria in suspension veterinary medicine]

Patent Number: 5,885,823
ISSUED:March 23, 1999 (19990323)
Inventor: Knittel Jeffrey P Ames IA (Iowa) US (United States of America)
Roof Michael B Ames IA (Iowa) US (United States of America)
Assignee: NOBL Laboratories Inc (A U.S. Company or Corporation) Sioux Center IA (Iowa) US (United States of America) [Assignee Code(s): 44486]
Application Number: 8-658,194
FILED: June 04, 1996 (19960604)

This application is a continuation-in-part of U.S. patent application Ser. No. 08-465,337 (U.S. Pat. No. 5,714,375) filed Jun. 5, 1995.

Full Text: 1488 lines

ABSTRACT

A method for large scale cultivation and attenuation of L. intracellula bacteria by inoculating cells with L. intracellularis bacteria to infec the cells, incubating the infected cells in a reduced oxygen concentrat and maintaining the infected cells in suspension. Anti-L. intracellular vaccines are prepared from cultures grown in suspension. Diagnostic age are also disclosed.

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1: Res Vet Sci 1995 Nov;59(3):255-60

Entry of the bacterium ileal symbiont intracellularis into cultured enterocytes and it subsequent release.

McOrist S, Jasni S, Mackie RA, Berschneider HM, Rowland AC, Lawson GH.

Department of Veterinary Pathology, University of Edinburgh, Veterinary Field Station, Easter Bush, Midlothian.

Separate suspensions of two strains of ileal symbiont (I intracellularis, an obligate intracellular bacterium and tl causative agent of porcine proliferative enteropathy, w added to 40 or 80 per cent confluent monolayers of established cultures of rat (IEC-18) or pig enterocytes (IPEC-J2). Peak numbers of intracellular organisms wer detected within the enterocytes six days later, but no cytopathic effects were evident. After an initial close association with the cell membrane of the enterocytes, single bacteria were internalised after three hours witl membranes-bound vacuoles. The formation of an

membranes bound vacuoles. The formation of an electron-dense projection between cell membranes and external bacteria was only evident if the bacterial suspensions were centrifuged on to the monolayers. The release of internalised bacteria into the cytoplasm, with the breakdown and loss of membrane-bound vacuoles, was also evident three hours after infection. Internalised bacteria were associated with, but not observed within, coated membrane pits. Mitochondria were closely associated with internalised vacuoles and with released bacteria. Two to six days after infection, multiplication the bacteria free in the cytoplasm was frequently observed. In infected cells six days after the inoculatic of monolayers, groups of bacteria were found within lar balloon-like, cytoplasmic protrusions, and the subsequen release of bacteria from the monolayer provided a mea of bacterial exit from the cells. Many events in the in v culture model closely resembled events observed at the cellular level in animals infected with IS intracellularis the model provides a useful basis for investigating the pathogenetic mechanisms of this bacterium.

PMID: 8588102 [PubMed - indexed for MEDLINE]

1: Int J Syst Bacteriol 1995 Oct;45(4):820-5

Characterization of Lawsonia intracellularis ge nov., sp. nov., the obligately intracellular bacterium of porcine proliferative enteropathy

McOrist S, Gebhart CJ, Boid R, Barns SM.

Department of Veterinary Pathology, University of Edinburgh, Easter Bush, Midlothian, United Kingdom.

A novel obligately intracellular bacterium, ileal symbiont intracellularis, which was obtained from the intestines pigs with proliferative enteropathy disease, was grown i pure cocultures with tissue cultures of rat cells. An examination of the 16S ribosomal DNA gene sequence revealed that the isolates which we obtained are memb of the delta subdivision of the Proteobacteria and that sequences of these organisms exhibit a level of similarl 91% with the sequence of Desulfovibrio desulfuricans ATCC 27774. These isolates were homogeneous and differed in cellular morphology, acid fastness, phenotyp electrophoretic protein profile, and habitat from Desulfovibrio species. On the basis of the results of an

Desulfovibrio species. On the basis of the results of an integrated study of the phenotype and genotype of a consistent morphological entity found in particular porc cells and associated with a well-defined clinical conditio we concluded that these bacteria belong to a previously undescribed genus and species, for which we propose th name Lawsonia intracellularis gen. nov., sp. nov. A species-specific recombinant DNA probe was cloned previously, and this probe was used to identify the bacterium in tissue culture cells and in the ileal epitheli of pigs with proliferative enteropathy disease. Cocultur of the organism with a rat enterocyte cell line allowed u to designate strain NCTC 12656 the type strain and to describe the new genus and species. The organism whicl we cultured is pathogenic for pigs and causes proliferat enteropathy lesions in their ilea and colons, and Koch's postulates were fulfilled for this organism.

PMID: 7547305 [PubMed - indexed for MEDLINE]

1: Vet Microbiol 1995 Aug;45(4):339-50

Infection of cultured rat enterocytes by Ileal symbiont intracellularis depends on host cell function and actin polymerisation.

Lawson GH, Mackie RA, Smith DG, McOrist S.

Department of Veterinary Pathology, University of Edinburgh, Easter Bush, Midlothian, UK.

The mechanisms of entry of Ileal symbiont intracellular into IEC-18 rat enterocyte cells and subsequent bacter proliferation were examined in centrifuge-assisted and static infections. Live, oxygen or neomycin damaged, an formalin killed bacteria, each rapidly entered viable cell Live or damaged bacteria did not enter cells nor proliferate within cells after static infection of cells cooled to 5 degrees C. Infection of cells was greatly reduced at 20 degrees or 32 degrees compared to infection at 37 degrees C. Centrifuge-assisted infectio was also reduced by chilling the cells. Cytochalasin D bu not B inhibited the entry process indicating an actin-dependent infection although other pathways ma

actin dependent infection, although other pathways may also be involved in centrifuge-assisted infections. Drugs capable of modifying cell membrane charge, heparin receptors or trypsin-labile proteins were all inactive in preventing or enhancing infection. We therefore conclu that infection of enterocytes by IS intracellularis is dependent on host cell activity and actin polymerization but is independent of bacterial viability.

PMID: 7483247 [PubMed - indexed for MEDLINE]

1: J Clin Microbiol 1995 May;33(5):1314-7

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Antimicrobial susceptibility of ileal symbiont intracellularis isolated from pigs with proliferative enteropathy.

McOrist S, Mackie RA, Lawson GH.

Department of Veterinary Pathology, University of Edinburgh, Midlothian, United Kingdom.

Proliferative enteropathy is caused by the microaeroph obligate intracellular bacterium ileal symbiont (IS) intracellularis. Treatment of this disease is problematic because of the lack of in vivo or in vitro data on the activities of antimicrobial agents. A new procedure for determining the susceptibility of IS intracellularis was developed by using a tissue culture system which promo the in vitro multiplication of this organism. Nineteen antimicrobial agents were evaluated in triplicate culture for their intracellular and extracellular activities agains up to three IS intracellularis strains isolated from pigs with proliferative enteropathy. The MIC was defined as

the lowest concentration which prevented multiplicatior 99% of the IS intracellularis isolates. Penicillin, erythromycin, difloxacin, virginiamycin, and chlortetracycline were the most active compounds test all with MICs of < or = 1 microgram/ml. Tiamulin and tilmicosin were the next most active compounds, with M of < or = 4 micrograms/ml. The MICs of aminoglycosides were generally > 32 micrograms/ml. Both lincomycin and tylosin were relatively inactive against the IS intracellularis strains tested, with MICs of 32 and 64 micrograms/ml, respectively. These results indicate tha some compounds capable of intracytoplasmic accumulati and blocking bacterial protein synthesis were active against IS intracellularis strains isolated from pigs with proliferative enteropathy. The in vitro cultivation syste shows promise as a method for studying the interaction between IS intracellularis and antimicrobial agents and screening new antibiotics for use in therapy.

PMID: 7615747 [PubMed - indexed for MEDLINE]

1: Int J Syst Bacteriol 1993 Jul;43(3):533-8

Ileal symbiont intracellularis, an obligate intracellular bacterium of porcine intestines showing a relationship to Desulfovibrio species

Gebhart CJ, Barns SM, McOrist S, Lin GF, Lawson G

Department of Veterinary PathoBiology, College of Veterinary Medicine, University of Minnesota St. Paul 55108.

A new genus and species of obligate intracellular-bacter found in porcine intestines are described. Growth on an bacteriological medium deprived of living cells has not b demonstrated. The organism has been grown intracellul in cell culture. The 16S rRNA gene sequence data, DNA probe results, and microscopic observations provide evidence that these bacteria differ from those in othe described genera and that they belong to the delta subdivision of the class Proteobacteria. We have amplif and sequenced the 16S ribosomal DNA of four preparations of the intracellular bacterium from pigs. F this intracellular organisms were released and purified

This, intracellular organisms were released and purified from the infected cells without culture techniques. Aft DNA purification, the polymerase chain reaction with primers complementary to highly conserved eubacterial sequences was used to amplify regions of 16S ribosomal DNA which were subsequently cloned (in some cases) an sequenced directly by standard techniques. The sequen obtained from each preparation were identical and were most similar to that of a sulfate-reducing proteobacterium, Desulfovibrio desulfuricans ATCC 27 (91% similarity). An oligonucleotide probe complementar to a hypervariable region of the 16S rRNA sequence of bacterium hybridized with intracellular organisms obtai from porcine intestines. The bacterium is a gram-negati curved rod with tapered ends. It multiplies intracellular in the cytoplasm of ileal epithelial cells by septation. Th vernacular name Ileal symbiont (IS) intracellularis is proposed for this bacterium. The type strain of IS intracellularis is strain 1482/89 grown in cell culture fr a pig affected by proliferative enteropathy. It is deposited in the National Collection of Type Cultures, Colindale, London, as NCTC 12656.

PMID: 8347512 [PubMed - indexed for MEDLINE]

1: J Clin Microbiol 1993 May;31(5):1136-42

Intracellular bacteria of porcine proliferative enteropathy: cultivation and maintenance in vitro.

Lawson GH, McOrist S, Jasni S, Mackie RA.

Department of Veterinary Pathology, Royal Dick School Veterinary Studies, University of Edinburgh, Midlothiar United Kingdom.

An obligate intracellular bacterium was isolated from tl intestines of all 10 cases of porcine proliferative enteropathy from four different pig farms. The organis grew in a rat enterocyte cell line (IEC-18) and was maintained over 20 passages. The growth of the bacter was assessed by immunostaining of cells exposed to infection. Infection was not associated with morphologi cell change, and growth was confined to cells infected a the time of each transfer of infection and the progeny these cells. The bacterium is a microaerophilic, cell dependent, curved or rod-shaped, gram-negative bacillu that multiplies freely in the enterocyte cytoplasm. Cell

that multiplies freely in the enterocyte cytoplasm. Cell cultures containing the intracellular bacteria appear to free of other microorganisms, including chlamydiae and viruses.

PMID: 8501214 [PubMed - indexed for MEDLINE]
